Husbands' Involvement in Housework and Women's Psychosocial Health: Findings From a Population-Based Study in Lebanon

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Objectives. We examined the association between husbands' involvement in housework and the psychosocial health of their wives using data on married couples living in poor neighborhoods in Beirut, Lebanon.

Methods. Data were derived from a cross-sectional survey of 2797 households; 1652 married couples and their families were included in the analysis. An index of husbands' relative involvement in housework was constructed from 25 items focusing on division of housework activities. Logistic regression was used to assess associations between husbands' involvement in housework and wives' self-rated mental health status, marital dissatisfaction, and unhappiness.

Results. Husbands' involvement in housework was negatively associated with wives' psychological distress, marital dissatisfaction, and overall unhappiness after adjustment for relevant risk factors. In comparison with wives whose husbands were highly involved in housework, wives whose husbands were minimally involved were 1.60 times more likely to be distressed, 2.96 times more likely to be uncomfortable with their husbands, and 2.69 times more likely to be unhappy.

Conclusions. Our results showed a significant association between husbands' involvement in housework and their wives' psychosocial health. (*Am J Public Health.* 2007;97:860–866. doi:10.2105/AJPH.2005.080374)

During the 20th century a virtual revolution occurred in gender relations, beginning in Western European countries and North America between World War I and World War II and then spreading, albeit unevenly, to the developing countries of Asia, Latin America, and Africa. The profound demographic changes, particularly the sustained decline in human fertility, that have swept the globe during the past 100 years or so have been pivotal in redefining the roles of men and women as well as the notion of family. Women's educational levels have increased dramatically during this period, but the parallel trend toward women becoming more involved in the workforce has been the primary marker of the shift toward relatively more egalitarian gender relations.

In the early years of the 21st century, we have continued to witness great transformations in gender relations; in some cases established institutions and roles are being adapted, and in others new ones are being created. Notwithstanding these remarkable changes, women remain largely responsible for household tasks regardless of their employment status or educational level,[1] a situation with clear implications for their health and well-being. For example, women with multiple roles may suffer from elevated stress and strain as a result of an excess of responsibilities and a lack of leisure time.

Several scholars have investigated women's involvement in paid and domestic labor and the resultant effects on their health.[2–4] Considerable attention has been directed toward the mental health implications of the work environment and the "double burden" of paid work and housework in the context of Western countries.[5–11] Results from the available studies are inconclusive. Whereas some analysts have argued that involvement in paid labor has generated more control for women, with positive effects on their health,[9] others have shown that the increase in women's workload and their dual role have negative[12] or neutral[13] health effects.

Much less attention has been focused on men's relative involvement in housework and its implications for the psychosocial health of their wives. In this area, recent studies have compared families in which wives are homemakers and families in which they work.[7,11,14] Findings have demonstrated that "family demands," including household chores, are generally associated with homemakers' health status and that manual or unskilled workers are in poorer health than other working women.

We examined the association between husbands' involvement in housework and women's psychosocial health using data from a community sample of married women, predominantly homemakers, in a developing country setting characterized by patriarchy as well as impoverishment. Adopting a categorical approach to measuring division of household labor, we constructed a novel but simple index of husbands' relative involvement in household work using a detailed list of household tasks. Informed by the literature on gender perspectives on women's health, this study has important implications for public health and clinical practice.

METHODS

Sample

In the Urban Health Study, conducted during 2002–2003, trained interviewers who were women collected data from 15- to 59-year-old women who were or had been married and who resided in 1 of 3 urban communities in the greater Beirut area of Lebanon. We selected the study communities—Nabaa, Hay el Sellom, and the Burj Barajneh refugee camp—using practical and substantive criteria such as overall conditions of poverty, poor infrastructure, presence of rural immigrants, and proximity to the city of Beirut.

As judged by household incomes and subjective assessments of economic well-being,

these communities can be considered poor according to Lebanese standards. For example, the median yearly household income among the communities' residents was about $4200 in 2002; in comparison, the Lebanese national average in 1997 was nearly $12 000.[15] Similarly, according to the latest official data published by the Ministry of Social Affairs, the majority of residents consider themselves poor and indicate that they could not raise $100 if the need arose.[15]

Unlike in middle-class Lebanese households, people in these disadvantaged communities carry out their daily household chores without help from domestic servants.[16] Women in these communities continue to assume the primary responsibility for homemaking and traditionally feminine tasks such as cooking, cleaning, doing the laundry, and attending to children's needs. In contrast, men are the main breadwinners and are in charge of traditionally masculine tasks such as home repairs and car maintenance.[17]

There were also important differences between the study communities with respect to socioeconomic status. Burj Barajneh was the most disadvantaged of the communities in terms of living conditions, particularly income levels; the primary reason is that Palestinian refugees, who make up most of the community's residents, have largely been "socially excluded" in Lebanon, with little or no official access to the formal labor market or to public-sector services. The communities also differed in their ethnic and religious compositions. The populations of Nabaa and Hay el Sellom were predominantly Lebanese; 90% of Burj Barajneh's residents were Palestinian refugees. Nabaa was 80% Christian, whereas nearly all of the inhabitants of Hay el Sellom and Burj Barajneh were Muslims.

The survey was conducted in 2 stages. First, approximately 3000 households were randomly selected from a sampling frame constructed specifically for this study; members of 2797 of these households were successfully interviewed in the spring of 2002. At this stage, all household-level data (e.g., income) were collected through face-to-face interviews conducted with a proxy respondent (i.e., any adult in the selected household was eligible to answer these questions). Second, all 15- to 59-year-old women in the household sample who were or had been married were interviewed in the spring and summer of 2003 to obtain data directly from the women themselves. A total of 1869 women were successfully interviewed.

After wives' and husbands' records had been matched, a representative sample of 1691 married women was selected for the analysis. The matching process involved selecting eligible married women (aged 15 to 59 years old) from the women's data file and then matching them with their husbands in the household roster file (which contained information on all members of each household). This is because only women aged 15 to 59 years old were asked questions about the outcome variables. The study sample of matched couples was extracted from an initial random sample of 2797 households.

Different instruments were used at the 2 survey stages. With the exception of involvement in housework and income levels, all of the data included in our analyses were obtained from the questionnaires administered in the second stage. Overall response rates were 88.3% and 91.1% for the surveys administered at the first and second stages, respectively.

Outcome Measures

Three outcome variables—mental health status, marital satisfaction, and overall happiness—were used to reflect different dimensions of women's psychosocial health (in contrast to their overall well-being[18]). We used the 12-item General Health Questionnaire to measure mental health status.[19] Women whose total score was greater than 4 were classified as having poor mental health (i.e., in psychological distress).[20]

We assessed marital satisfaction with a question asking whether wives felt (1) very comfortable, (2) comfortable, (3) somewhat comfortable, (4) not comfortable, or (5) not comfortable at all with their husband. Given the low frequencies for some of these categories (e.g., only 2.1% of women indicated that they were not comfortable at all with their husband), we divided responses into 2 groups: satisfied ("very comfortable" or "comfortable" responses; coded as 0) and dissatisfied ("somewhat comfortable," "not comfortable," or "not comfortable at all" responses; coded as 1).

Finally, we measured happiness with the question "Taking everything into account, do you consider yourself very happy, happy, somewhat happy, not happy, or not happy at all?" In a manner similar to that for the marital satisfaction item, we grouped responses to this question into 2 categories: happy (coded as 0) and unhappy (coded as 1).

Independent Variables

Our main independent variable was an index of husbands' involvement in housework. We constructed the index by comparing husbands' and wives' involvement in 25 different household tasks. We originally administered index items in a Likert-scale format inquiring whether or not the respondent usually performed a given housework task. For each item, response options were as follows: (1) never, (2) sometimes, (3) most of the time, and (4) always. We used these response categories to develop the index in several steps. First, we created a data set containing only households with married couples. This household-level data set included the 25 items pertaining to husbands and the same items pertaining to wives.

Second, we created 25 new variables comparing husbands' and wives' responses to the household task items. In the case of each couple, each of these variables was computed as a 6-category indicator of the husband's and wife's involvement: wife only (0), mostly wife (1), alternating (2), mostly husband (3), husband only (4), or neither (5). Thus, this indicator reflected the extent of the husband's involvement in each task, with scores ranging from 1 (low) to 4 (high). For example, if a wife "always" did the cooking and her husband "never" cooked, the husband involvement indicator for this item was coded as 0 (i.e., "wife only"). A couple was defined as "alternating" (coded as 2) if the husband's and wife's levels of involvement were similar. However, because the index was designed to indicate division of responsibilities between spouses, an item was excluded if neither the husband nor the wife performed the task in question (coded as 5).

Table 1 displays the distribution of husbands' and wives' responsibilities for the household tasks assessed. There was a clear

TABLE 1—Percentage Distribution of Husbands' and Wives' Involvement in Household Tasks: Urban Health Study, Beirut, Lebanon, 2003

Task	Wife Only, %	Mostly Wife, %	Alternating, %	Mostly Husband, %	Husband Only, %	Neither, %
Washing clothes	91.4	4.7	1.3	0.1	0.1	2.4
Cleaning bathroom	90.3	4.4	1.6	0.1	1.6	3.4
Cleaning kitchen	85.1	10.4	2.4	0.2	0.1	1.8
Ironing	84.6	5.5	2.3	0.4	0.8	6.4
Washing dishes	83.7	11.6	2.7	0.4	0.4	1.6
Preparing food	78.1	15.6	4.9	0.2	0.1	1.0
Cleaning rooms	75.9	16.8	5.1	0.1	0.1	1.9
Managing expenses	53.3	8.7	21.4	3.7	11.3	1.6
Buying personal items (e.g., clothing, shoes, perfume)	48.5	13.6	23.7	1.5	4.0	8.8
Shopping for home needs (e.g., food, soap)	41.0	22.2	22.0	5.5	7.7	1.5
Helping with schoolwork	28.8	4.7	6.7	1.5	2.8	55.4
Following up on children's schooling	25.7	7.2	18.0	4.5	7.0	37.6
Buying drinking water	22.4	4.4	11.0	4.5	21.8	36.0
Accompanying someone on an errand	15.1	15.6	48.2	4.2	6.5	10.4
Paying bills	13.1	5.8	22.2	9.9	45.3	3.7
Providing transportation for a family member	11.7	8.3	28.3	5.3	25.1	21.2
Providing care for a 4- to 14-year-old son or daughter	9.4	13.3	40.3	0.4	0.4	36.4
Buying water for domestic and personal hygiene	8.4	1.5	4.7	2.1	12.7	70.6
Caring for sick family member	8.2	12.5	77.1	0.8	0.5	1.0
Performing house maintenance	6.5	1.9	7.7	6.8	63.3	13.9
Providing care for a 0- to 3-year-old son or daughter	5.3	9.6	25.7	0.2	0.2	59.0
Caring for elderly family member	4.5	1.2	6.6	0.5	0.0	87.2
Buying fuel	4.1	0.8	3.3	2.5	29.5	59.8
Caring for disabled family member	0.9	0.2	1.0	0.0	0.0	97.9
Performing car maintenance	0.4	0.0	0.8	0.7	34.9	63.1

division of household labor, with more than 70% of couples reporting that only the wife performed in-house chores such as cooking and washing clothes and dishes. In contrast, husbands were more involved in typically male activities such as car maintenance (however, wives were involved in these activities as well). Other researchers have reported similar gender typing of household tasks.[21,22]

Finally, item responses were summed for each couple, yielding an overall index of husbands' involvement in housework. This index, ranging from 0 to 90, had a high internal consistency (Cronbach $\alpha=0.77$). Its distribution was highly skewed, however, and thus we decided to transform it into a categorical variable. We divided the index into quintiles indicating low to high values of husbands' involvement, but we combined the 3 middle categories after they yielded essentially identical results with respect to the outcome variables.

We adjusted for several socioeconomic, demographic, and health risk factors in our analyses. We used 3 indicators as proxy measures for socioeconomic status: yearly household income (in quartiles), adjusted for household size using the Office of Economic Cooperation and Development's equivalence scale[23]; women's educational level (no education, elementary school, intermediate school, secondary education or more); and labor force participation (yes or no).[24]

Sums of amounts from a detailed list of 14 different sources were used in determining household income levels. Demographic and health status risk factors included age group (15–29 years, 30–44 years, 45–59 years), current smoking status (yes or no), chronic health problems (yes or no), and health problems in the past 2 months (yes or no). Finally, community of residence (Nabaa, Hay el Sellom, Burj Barajneh) was included as an index of social context. This variable was of interest because, as mentioned, residents of Burj Barajneh were a socially excluded group, and thus the women residing there might be disadvantaged with respect to psychosocial health status.

Statistical Analyses

We initially calculated univariate descriptive statistics for the variables included in our data and then conducted bivariate analyses using χ^2 tests to examine the associations between psychosocial health status and independent variables. Next, we used binomial logistic regression models to assess the associations between the outcome measures and the index of husbands' involvement in housework, adjusting for socioeconomic status, social capital, and other relevant demographic and health risk factors. Stata (Stata Corp, College Station, Tex) was used in conducting all analyses.[25]

RESULTS

Table 2 shows the univariate distributions of all independent variables included in the analysis, together with their associations with the 3 outcome variables. Overall, 32.3% of women reported distress, 18.7% reported marital dissatisfaction, and 13.2% reported being unhappy. In the majority of cases (60.9%), husbands' level of housework involvement was moderate; in the remaining instances, husbands were almost equally divided between low (19.4%) and high (19.7%) levels of involvement.

In terms of income distribution, 26.4% of households fell in the highest quartile and 23.4% in the lowest quartile. More than a quarter (27.4%) of the women had less than an elementary school (6 years) education; only 11.2% had at least a secondary education. Fewer than a fifth (17.7%) of women were in the labor force. More than half

TABLE 2—Characteristics of Sample of Married Women Aged 15–59 Years: Urban Health Study, Beirut, Lebanon, 2003

Independent Variable	Total, No. (%)	Distressed, %	Dissatisfied With Marriage, %	Unhappy, %
Husband-wife involvement index score[a]				
High	321 (19.4)	25.9	10.0	7.2
Medium	1006 (60.9)	29.8	17.0	12.4
Low	325 (19.7)	46.5	32.3	21.2
Income group				
High	446 (26.4)	26.9	17.0	9.2
Medium high	436 (25.8)	27.8	16.0	11.0
Medium low	413 (24.4)	35.8	21.2	15.7
Low	395 (23.4)	40.5	21.7	17.5
Education				
Secondary or above	188 (11.2)	18.1	9.7	6.9
Intermediate	311 (18.5)	25.7	12.3	8.0
Elementary	721 (42.9)	33.4	19.4	14.2
None	461 (27.4)	40.8	26.0	17.6
Labor force participation				
Yes	298 (17.7)	39.6	22.8	15.4
No	1389 (82.3)	31.0	18.1	12.7
Age group, y				
15–29	445 (26.3)	26.1	13.3	10.8
30–44	894 (52.9)	31.9	16.9	12.2
45–59	352 (20.8)	42.1	30.8	18.8
Smoking status				
Nonsmoker	1017 (60.1)	29.3	16.3	10.5
Smoker	674 (39.9)	37.2	22.7	17.2
Health problem in past 2 mo				
No	852 (50.4)	25.2	14.8	9.6
Yes	839 (49.6)	39.8	22.9	16.8
Chronic health problem				
No	1189 (70.4)	28.3	16.0	10.8
Yes	499 (29.6)	42.7	25.8	19.0
Community of residence				
Hay el Sellom	483 (28.6)	28.0	17.5	13.9
Nabaa	614 (36.3)	29.6	20.4	13.4
Burj Barajneh	594 (35.1)	39.1	18.3	12.5

[a]We constructed the index by comparing husbands' and wives' involvement in 25 different household tasks.

(52.9%) were in the reproductive age range of 30 to 44 years. A high proportion (39.9%) of women reported smoking, and about half reported having had health problems in the past 2 months (49.6%). Likewise, a relatively large percentage (29.6%) reported chronic health problems. Finally, the percentage of women residents was smaller in Hay el Sellom (28.6%) than in Nabaa (36.3%) or Burj Barajneh (35.1%).

Bivariate analyses revealed that scores on the husband involvement index were strongly associated with the 3 measures of psychosocial health assessed. Education, age, smoking status, reported health problems in the previous 2 months, and reported chronic health problems were also associated with these outcomes. However, income, although associated with distress and unhappiness, was not associated with marital dissatisfaction. Finally, labor force participation and community of residence were associated with distress but not with marital dissatisfaction or unhappiness.

We created multiple logistic regression models in an effort to uncover the associations between husbands' involvement in housework and our outcome variables (Table 3). Relative to high levels of involvement in housework, low levels of involvement were significantly associated with distress (odds ratio [OR]=1.60; 95% confidence interval [CI]=1.11, 2.30), marital dissatisfaction (OR=2.96; 95% CI=1.86, 4.72), and unhappiness (OR=2.69; 95% CI=1.53, 4.71) among wives. A gradient in husband's housework involvement was evident for marital dissatisfaction and unhappiness but not for distress. However, women whose husbands were moderately involved in housework were 1.66 (95% CI=1.09, 2.53) and 1.90 (95% CI=1.14, 3.15) times more likely, respectively, than women whose husbands were highly involved to report marital dissatisfaction and unhappiness.

Smoking, reports of health problems, and low income levels were significantly associated with the 3 measures of psychosocial health. Odds ratios for smokers (vs nonsmokers) were 1.35 (95% CI=1.08, 1.69) for distress, 1.37 (95% CI=1.05, 1.78) for marital dissatisfaction, and 1.62 (95% CI=1.19, 2.19) for unhappiness. The corresponding odds ratios for reported health problems were 1.64 (95% CI=1.30, 2.05), 1.31 (95% CI=1.00, 1.73), and 1.40 (95% CI=1.02, 1.92). Women at the lowest income level were more likely than women at the highest income level to report distress (OR=1.55; 95% CI=1.08, 2.15), marital dissatisfaction (OR=1.50; 95% CI=1.00, 2.23), and unhappiness (OR=2.34; 95% CI=1.46, 3.76).

Patterns of associations for the remaining independent variables were mixed. Labor force participation and community of residence were associated only with distress. Women who were employed were more likely than those who were not employed to report distress (OR=1.49; 95% CI=1.12, 1.99), and distress was more common among women residing in Burj Barajneh than among those residing in Hay el Sellom (OR=1.44; 95% CI=1.08, 1.94).

TABLE 3—Adjusted Odds Ratios (ORs; With 95% Confidence Intervals [CIs]) for Distress, Marital Dissatisfaction, and Unhappiness: Urban Health Study, Beirut, Lebanon, 2003

	Distress		Marital Dissatisfaction		Unhappiness	
Independent Variable	OR (95% CI)	*P*	OR (95% CI)	*P*	OR (95% CI)	*P*
Husband–wife involvement index score[a]						
High	1.00		1.00		1.00	
Medium	1.09 (0.80, 1.48)	.573	1.66 (1.09, 2.53)	.018	1.90 (1.14, 3.15)	.013
Low	1.60 (1.11, 2.30)	.011	2.96 (1.86, 4.72)	≤.001	2.69 (1.53, 4.71)	.001
Income group						
High	1.00		1.00		1.00	
Medium high	0.98 (0.71, 1.36)	.923	0.96 (0.65, 1.42)	.827	1.14 (0.70, 1.84)	.595
Medium low	1.33 (0.96, 1.84)	.086	1.25 (0.85, 1.84)	.259	1.80 (1.14, 2.86)	.013
Low	1.55 (1.11, 2.17)	.010	1.50 (1.00, 2.23)	.050	2.34 (1.46, 3.76)	≤.001
Education						
Secondary or above	1.00		1.00		1.00	
Intermediate	1.46 (0.92, 2.32)	.106	1.15 (0.63, 2.10)	.649	0.82 (0.39, 1.69)	.592
Elementary	1.92 (1.27, 2.92)	.002	1.73 (1.00, 2.95)	.046	1.59 (0.85, 2.95)	.147
None	2.10 (1.35, 3.30)	.001	1.77 (1.00, 3.12)	.048	1.65 (0.86, 3.19)	.133
Labor force participation						
No	1.00		1.00		1.00	
Yes	1.49 (1.12, 1.99)	.005	1.32 (0.95, 1.84)	.102	1.20 (0.82, 1.77)	.342
Age group, y						
15–29	1.00		1.00		1.00	
30–44	1.15 (0.87, 1.51)	.320	1.15 (0.80, 1.62)	.447	0.93 (0.63, 1.38)	.713
45–59	1.37 (0.96, 1.97)	.082	1.78 (1.17, 2.72)	.007	1.17 (0.72, 1.89)	.530
Smoking status						
Nonsmoker	1.00		1.00		1.00	
Smoker	1.35 (1.08, 1.69)	.008	1.37 (1.05, 1.78)	.020	1.62 (1.19, 2.19)	.002
Health problem in past 2 mo						
No	1.00		1.00		1.00	
Yes	1.64 (1.30, 2.05)	.001	1.31 (1.00, 1.73)	.050	1.40 (1.02, 1.92)	.040
Chronic health problem						
No	1.00		1.00		1.00	
Yes	1.31 (1.03, 1.68)	.029	1.30 (0.97, 1.73)	.077	1.48 (1.06, 2.05)	.020
Community of residence						
Hay el Sellom	1.00		1.00		1.00	
Nabaa	1.02 (0.74, 1.39)	.911	1.05 (0.73, 1.52)	.786	0.94 (0.62, 1.42)	.786
Burj Barajneh	1.44 (1.08, 1.94)	.015	0.82 (0.57, 1.18)	.284	0.61 (0.41, 0.91)	.017

[a]We constructed the index by comparing husbands' and wives' involvement in 25 different household tasks.

Education and reported chronic health problems were associated with distress and unhappiness. Women with no education were more likely to be distressed (OR=2.10; 95% CI=1.35, 3.30) and to be dissatisfied with their partner (OR=1.77; 95% CI=1.00, 3.12) than were those with at least a secondary education. Similarly, in comparison with women not reporting chronic health problems, those reporting such problems were more likely to be distressed (OR=1.31; 95% CI=1.03, 1.68) and unhappy (OR=1.48; 95% CI=1.06, 2.05). Finally, older women (45–59 years) were more likely than younger women (15–29 years) to report marital dissatisfaction (OR=1.78; 95% CI=1.17, 2.72).

DISCUSSION

Our main finding was that involvement of a husband in housework is strongly associated with the psychosocial health of his wife. Women, predominantly full-time homemakers, whose husbands were highly involved in housework were in better mental health, happier, and more satisfied with their marriage than other women. This association persisted after adjustment for other relevant risk factors.

Our results concur with those of previous studies from Western countries examining associations between division of household labor and women's psychological health.[26,27] One study showed that perceptions of fairness in the distribution of household tasks are a stronger determinant of psychological distress than amount of housework performed.[6] Another study showed that a disproportionate division of household duties is more detrimental to women's mental health than is an overload of work.[27] A number of recent investigations have reported that equitable division of household labor is one of the most important determinants of women's psychosocial health.[28–31]

We found that socioeconomic variables were significantly associated with distress but that their associations with happiness and marital satisfaction were mixed. Household income was associated with the 3 outcome measures but only for the lower income groups: the lower a woman's family's income, the more she reported being distressed, unhappy, and dissatisfied with her marriage. There is a vast literature showing a negative relationship between income level and distress.[32–35] Women's inability to sufficiently support their family financially may trigger negative thoughts such as feelings of fear and worries over family and children, in turn contributing to poor mental health.[33]

Our results also revealed a consistent association between women's educational level and 2 measures of psychosocial health, distress and marital dissatisfaction. These associations are in agreement with previous findings showing positive relationships between depressive symptoms and low levels of education.[32,35–40] In a study focusing on quality of life among Korean women, educational level was positively associated with women's confidence, psychological well-being, and

stability.[32] In our study, the association between education and unhappiness was neither statistically significant nor consistent.

We found that women in the labor force were more distressed than women not in the labor force, but there was no significant association with either unhappiness or marital dissatisfaction. This result was in contrast to the findings of studies showing that lack of employment and economic inactivity lead to increased distress among women.[33–35,40,41] Working women who are of high social status and in good mental health are more likely to be physically healthy, to earn more money, and to have a higher level of decisionmaking authority in their job.[5,7,11,14] Such results may help explain our finding of a positive association between distress and labor force participation; that is, the women of our study were expected to hold either low-status positions involving little job satisfaction or relatively high-status positions with stressful workplace conditions.

We found that older women were significantly more likely than younger women to report that they were dissatisfied with their marriage but not to report that they were distressed or unhappy. As shown in the literature, tiredness gradually intensifies with age.[34,36,42] The older women become, the more physically and psychologically vulnerable they feel. This fact cannot be fully attributed to the changes in hormone levels that occur with the aging process. Other factors such as general living conditions, including economic security, also play an important role.[34]

Our results showed that smoking was strongly associated with distress, marital dissatisfaction, and unhappiness, largely echoing the literature on the association between smoking and psychological health.[36,43–45] There was uncertainty, however, concerning the direction of causality between smoking and psychosocial health. Life characteristics and psychosocial health may also contribute to smoking.[43] Studies have shown that smoking sometimes functions as a coping mechanism helping people deal with pressure and anxiousness in times of financial difficulties, isolation, or family problems.[43,45,46]

Our findings concur with previous studies reporting associations between health problems and psychosocial health. In our study, these associations reached significance for both distress and unhappiness. Women often relate feelings of unhappiness and distress to health problems.[33,40] In contrast, research has shown that health problems can be a reflection of distress among women.[47] For instance, depression has been found to be an independent risk factor for cardiac problems.[48]

Finally, our data showed that women living in Burj Barajneh were more likely to be distressed than women living in the other 2 communities. This finding was expected because the refugees residing there faced economic disadvantages resulting from the legal restrictions imposed on them. Another factor that might have contributed to high distress among residents of Burj Barajneh was their substandard physical environment, with crowded living conditions and a lack of recreation facilities.

To our knowledge, this is the first study to use community-based data to investigate associations between husbands' involvement in housework and wives' psychosocial health in the patriarchal context of the Middle East. We constructed a novel index of husbands' and wives' involvement in housework based on a detailed list of household tasks. This index, which reflected the ways in which involvement in household tasks was divided, enabled us to ground our analysis in a relational perspective and document the links between husbands' relative contributions to housework and their wives' psychosocial health.

However, our study involved some important limitations. First, a proxy respondent (in most cases a woman) answered questions about household chores. Thus, reports of household chores may have been influenced by social desirability with respect to what are suitable household tasks for men and women.[49] Second, given the context of widespread illiteracy in our study communities, we focused on "categorical" measurements of household chores rather than amount of time spent performing a task. However, previous studies have shown that division of household labor is more important than time spent on such labor in determining women's psychosocial health.[27,28]

Third, our survey's cross-sectional design limited our ability to establish causality. We are able to conclude only that in general there is a strong association between division of household labor and women's psychosocial health. A related problem is that we were unable to adjust for prior mental health status. As a result, we were not able to verify whether the effects associated with division of household labor were an artifact of a selection process through which women suffering from health problems may have induced their husbands to do housework. Finally, our data were collected from residents of 3 underprivileged urban communities, limiting our ability to generalize findings to other populations of women in Lebanon or elsewhere.

In conclusion, this study demonstrates that our index of husbands' relative involvement in household work is a good predictor of women's psychosocial health. In particular, after adjusting for other relevant variables, we found that when husbands were less involved in housework, their wives were more likely to be distressed, unhappy, and dissatisfied with their marriage. ■

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Contributors

M. Khawaja originated the study, performed the statistical analysis, and prepared the first draft. R.R. Habib supervised data collection and drafted sections of the article. Both authors conceptualized ideas, interpreted findings, and reviewed and edited drafts of the article.

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Human Participant Protection

This study was approved by the institutional review board of the American University of Beirut. Participants provided informed consent.

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